

Product Data Sheet

Cat # RP-357

Recombinant Human Histidyl-tRNA Synthetase

Size: 10 ug

Aminoacyl-tRNA synthetases are a class of enzymes that charge tRNAs with their cognate amino acids. The protein encoded by this gene is a cytoplasmic enzyme which belongs to the class II family of aminoacyl-tRNA synthetases. The enzyme is responsible for the synthesis of histidyl-transfer RNA, which is essential for the incorporation of histidine into proteins. The gene is located in a head-to-head orientation with HARSL on chromosome five, where the homologous genes share a bidirectional promoter. The gene product is a frequent target of autoantibodies in the human autoimmune disease polymyositis/dermatomyositis.

Source: *Escherichia Coli*. Histidyl-tRNA Synthetase Human Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain having a molecular mass of 55 kDa. The Histidyl-tRNA Synthetase is purified by proprietary chromatographic techniques. The protein solution (1.2 mg/ml) contains 150mM NaCl and 10mM sodium phosphate containing 0.1% NaN₃ (pH 7.2).

Applications and Suggested Dilutions: Greater than 90.0% as determined by both: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE. Users must optimize the appropriate concentration and conditions for each assay. Western Blot: Strongly reactive with human anti Histidyl-tRNA Synthetase antisera.

Stability and Storage: Lyophilized Histidyl-tRNA Synthetase although stable at 4°C for 3 weeks, should be stored desiccated below -18°C. **Please prevent freeze-thaw cycles.** If supplied in powder then reconstitute it in 100 ul water for 1 mg/ml stock and store in liquid at 4oC for ~1 week or aliquots in suitable size and store at -20oC for long term storage.

Protein content: Protein quantitation was carried out by using 0.25 - 2.0 mg/ml Bradford assay vs. BSA.

Usage: This item is for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

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